



# **Your partner in rail maintenance**

## The best solutions for your grinding and cutting applications

English

Premium grinding solutions since 1919  
[www.tyrolit.com](http://www.tyrolit.com)

**TYROLIT**

## The Tyrolit Group

Tyrolit is one of the world's leading manufacturers of grinding and dressing tools as well as a system provider for the construction industry.

Since 1919, our innovative tools have made an important contribution to the technological development in many industries. Tyrolit offers tailored grinding solutions for various applications, as well as a comprehensive assortment of standard tools for customers all over the world.

With roots in the heart of the Austrian Alps, Tyrolit combines the strengths of family values with a global vision and over a century of individual corporate and technological experience.



Tyrolit headquarters in Schwaz (Austria)

## Facts & figures



**80,000+**  
standard products



**30+**  
global production sites



**4,500+**  
valued employees



**140+**  
countries within our reach



**500+**  
patents worldwide

Sales companies in Argentina, Australia, Austria, Belgium, Brazil, Canada, China, Czech Republic, Denmark, Estonia, Finland, France, Germany, Hungary, India, Indonesia, Italy, Netherlands, Norway, Poland, Portugal, Russia, Spain, South Africa, South Korea, Sweden, Switzerland, Thailand, UAE, UK and the US. Sales partners in 65 other countries.



## Your competent partner in rail maintenance

The requirements for grinding and cut-off wheels when processing railroad, tram or subway tracks are diverse. Whether for manual work or for use on grinding trains – the customer expects a tool that fulfils the high demands for short grinding times and a long lifetime even under the most difficult application conditions.

Tyrolit offers many years of experience in a wide range of applications and techniques for rail processing. With an extensive portfolio of products and exceptional product quality, processes can be optimised, productivity is increased and maximum safety for the operator guaranteed.

This brochure provides you with an overview of our product range for rail processing. Our experienced application engineers will be happy to help you optimise products for your individual requirements.



# Application technology

## The best grinding solutions for your processes

Expertise in cutting and grinding – this has been Tyrolit's hallmark for more than a hundred years.

Thanks to the enormous process expertise of our application engineers, we can offer our customers sustainable solutions that meet their high technical and economic expectations.

The global team of specialised application engineers defines solutions individually tailored to your needs. Our assortment has been optimised for the respective machines and grinding processes over many years of cooperation with end users and machine manufacturers.

### Advantages for you

- + Worldwide presence of our application engineers
- + Process optimisation and tool solutions for individual tasks
- + Cooperation with established machine manufacturers
- + Internal and external training courses



# Customised solutions Tailored to your application and requirements

In the field of rail maintenance, customers have the highest demands on the performance and quality of the tools supplied for all grinding and cutting applications.

To guarantee the best possible solution for your application, Tyrolit offers customised products for a wide range of applications. Below you will find an overview of the available grinding tools for rail processing. A detailed description of these tools and their respective areas of application can be found on the following pages.

## Grinding tools for rail maintenance

Component	Grinding application	Recommended product
Rail	Cutting	PREMIUM CERABOND X STANDARD
	Grinding train	SECUR Rail
	Hand-operated grinding	SECUR Rail
	Off-hand cutting & grinding	PREMIUM CERABOND X









# Cut-off wheels

for rail cutting

The newly developed CERABOND X cut-off wheel for rails has been designed for maximum aggressiveness and durability. As a result, this tool defies the most adverse conditions and gets you to your goal faster! The portfolio also includes cut-off wheels in various quality lines to cover all requirements.

These special rail cutting wheels may only be used for hand-guided cutting with the appropriate clamping device attached to the rail. Never use them purely for off-hand cutting!



TOP  
PERFORMER


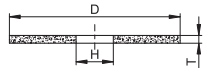
★★★  
PREMIUM

## CERABOND X cut-off wheels



### Advantages

- + Shortest cutting times and comfortable working with little effort
- + Very long service life and stability
- + Clean and flush cutting areas reduce rework and working times
- + Best results even in damp and cold environments as well as with fluctuating temperatures

Shape	Type number	Dimensions [D x T x H]	Specification	Vs [m/s]	PU
 	41	34617164	300 x 3,5 x 20	CA24R-BFP RAIL	100 10
		34617165	350 x 3,8 x 20	CA24R-BFP RAIL	100 10
		34617166	400 x 4,3 x 20	CA24R-BFP RAIL	100 10
		34617167	300 x 3,5 x 25,4	CA24R-BFP RAIL	100 10
		34617168	350 x 3,8 x 25,4	CA24R-BFP RAIL	100 10
		34617169	400 x 4,3 x 25,4	CA24R-BFP RAIL	100 10


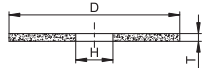
★★★  
PREMIUM

## Cut-off wheels with universal bore



### Advantages

- + Integrated reduction bush enables use on machines with 20 mm or 25.4 mm mounting
- + Improved specification for increased lifetime and better cutting performance
- + Clean and bright cutting areas facilitate subsequent work steps
- + Very comfortable working possible without great effort

Shape	Type number	Dimensions [D x T x H]	Specification	Vs [m/s]	PU
 	41	34517333	300x3,5x20/25,4	A24R-BFPRAIL	100 10
		34517332	350x3,8x20/25,4	A24R-BFPRAIL	100 10
		34517334	400x4,3x20/25,4	A24R-BFPRAIL	100 10




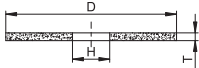


## Cut-off wheels

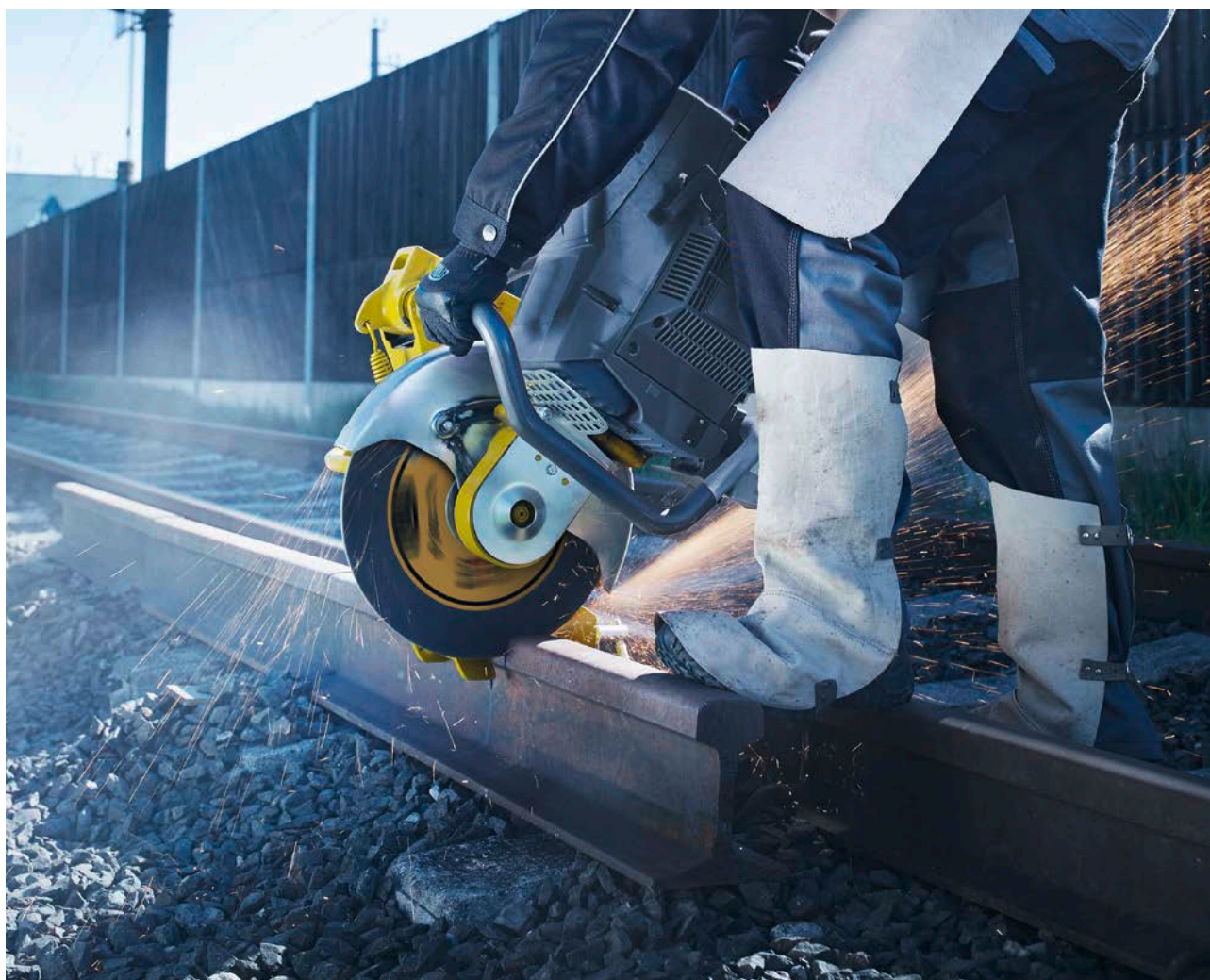


### Advantages

- + Comfortable cutting with good cutting ability

Shape	Type number	Dimensions [D x T x H]	Specification	Vs [m/s]	PU	
 	41	75937	300 x 3,5 x 20	A30S-BFSRAIL	80	10
	75938	300 x 3,5 x 22,23	A30S-BFSRAIL	80	10	
	75934	350 x 4,0 x 20	A30S-BFSRAIL	100	10	
	75935	350 x 4,0 x 22,23	A30S-BFSRAIL	100	10	
	75936	350 x 4,0 x 25,4	A30S-BFSRAIL	100	10	
	355251	400 x 4,3 x 25,4	A30S-BFSRAIL	100	10	

Further dimensions and designs on request

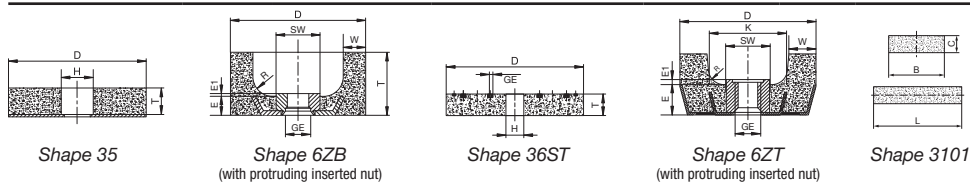



# Grinding tools

## for grinding trains

The grinding of longer sections of track, both preventive and corrective, is carried out by trains mounted with up to 96 grinding spindles. Tyrolit grinding products are customised to your requirements. Our high-quality grinding tools achieve an increased surface quality of the rail running surface, which helps to reduce noise emissions and extend the lifetime of the rail.

### SECUR RAIL grinding wheels



Shape	Type number	Dimension [D x T x H]	Specification	Vs [m/s]	Fibre glass reinforcement	Back. plate	Comment
	35	34339642	180 x 105 x 90	A16-BC	45	X	Speno
		34364531	260 x 35 x 195	A20-BB	50		X Speno
		34357184	260 x 83,5 x 152,4	A14-BA	50	X	X Harsco
		34338453	260 x 91 x 153	A14-BA	50	X	X Loram
6ZB	34427925	100 x 110 x M20	A20-BA	50			Autech
6ZT	34466304	102 x 110 x M20	A16-BB	50			Autech
	34427926	130 x 110 x M20	A14-BA	50			Autech
	34646910	152 x 75 x 5/8"	A20-BA	50	X		Harsco
36ST	34375832	250 x 75 x 130	A16-BB	50			SRT Fano
3101	34715444	75 x 150 x 248	A20-BA				Plasser & Theuer

Further dimensions and designs on request



Design with fibre glass reinforcement



Design with protruding inserted nut



Design with backup plate



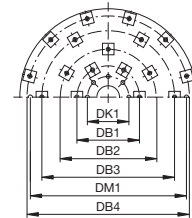
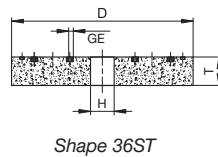
# Grinding tools

for hand-operated grinding machines

Hand-operated grinding tools are used on short sections of rails to remove surface defects but are mainly used for laying new individual rail sections. Grinding the weld seam produces rail head profiles with high dimensional and shape accuracy. Our easy cutting grinding products guarantee short machining times with maximum safety.



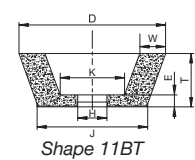
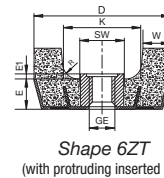
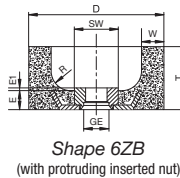
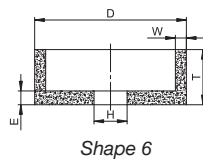
## SECUR RAIL grinding wheels with thread inserts



Shape	Type number	Dimension [D x T x H]	Specification	Vs [m/s]	Comment
36ST	444889	125 x 60 x 55 – 4 x M8	A14-BQ	50	Robel 13.44
36ST	444890	150 x 60 x 80 – 4 x M8	A14-BQ	50	Robel 13.48
36ST	34440882	150 x 72 x 80 – 6 x M8	A14-BR	50	Geismar MP12

Further dimensions and designs on request

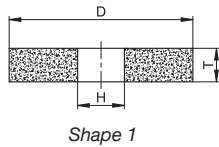
## SECUR RAIL cup wheels



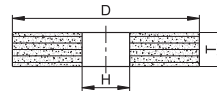
Shape	Type number	Dimension [D x T x H]	Specification	Vs [m/s]	Comment
6	34460690	100 x 110 x 22,23	A20-BB	50	Möser RO-V135
6ZB	34675106	127 x 51 x M20	A16-BQ	50	Geismar MP6 /MP12
	34577971	150 x 65 x M20	A14-BA	50	Robel 13.44 / 13.48
	34239129	150 x 65 x 5/8"	A16-BP	50	Geismar MV3
6ZT	34374373	150 x 67 x M20	A14-BP	50	Geismar MP23
11BT	34440881	110 x 55 x 22,23	A16-BP	50	Angle Grinder

Further dimensions and designs on request

## SECUR RAIL grinding wheels



Straight grinding wheel without fibre reinforcement



Straight grinding wheel with fibre reinforcement

Shape 1F63/1F80

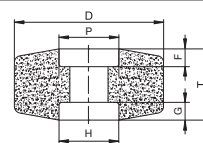
	Shape	Type number	Dimension [D x T x H]	Specification	Vs [m/s]	Comment
	1	34374374	125 x 18 x 16	A16-BA	50	
		34374421	200 x 20 x 22,23	A16-BA	50	
		34374426	225 x 20 x 22,23	A16-BA	50	
		34369132	254 x 40 x 76,2	A16-BA	50	Robel 13.61
		34369133	255 x 32 x 25,4	A16-BA	50	Robel 13.61
		158752	260 x 25 x 120	A16-BA	50	Robel 13.61
	1F80	34374596	175 x 25 x 20	A16-BFA	80	
		34374600	250 x 20 x 25,4	A16-BFA	80	
		34374598	230 x 15 x 22,23	A16-BFA	80	
		34374599	230 x 23 x 22,23	A16-BFA	80	

Further dimensions and designs on request

## SECUR RAIL grinding wheels

### for rail webs

These products are used under the head of the rail to remove rust and scale and to smooth welding seams. Our easy cutting grinding tools guarantee short machining times with maximum safety.



Shape 9

	Shape	Type number	Dimension [D x T x H]	Specification	Vs [m/s]	Comment
	9	222265	135 x 90 x 25,4 - 52 x 30	A14-BR	50	Robel 13.03
		34366369	136 x 96 x 25,4 - 52 x 30	A14-BR	50	Geismar MS9

Further dimensions and designs on request



# Cutting and grinding tools





for off-hand grinding machines

Cut-off and grinding wheels are used for various repair and cleaning work, e.g. in the area of the rail head, fishplates and bolt connections. Tyrolit tools meet the most advanced requirements for cost-effective working, high stock removal rates, simple handling and above-average lifetime.

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**PREMIUM**




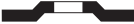
## CERABOND X cut-off and grinding wheels

	Shape	Type number	Dimension [D x T x H]	Specification	PU
		41 34638765	230 x 2,0 x 22,23	CA30Q-BFP	15 Stk.
		27 34401850	178 x 7,0 x 22,23	CA24Q-BFP	5 Stk.
		34387127	230 x 7,0 x 22,23	CA24Q-BFP	5 Stk.
		34401849	178 x 4,0 x 22,23	CA24Q-BFP	5 Stk.
		34401852	230 x 4,0 x 22,23	CA24Q-BFP	5 Stk.
		34645085	178 x 7,0 x 22,23	CA24P-BFP	5 Stk.
		34611111	230 x 7,0 x 22,23	CA24P-BFP	5 Stk.

Further dimensions on request or see industrial trade catalogue

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## Cut-off and grinding wheels

	Shape	Type number	Dimension [D x T x H]	Specification	PU
		41 872344	230 x 3,0 x 22,23	A30Q-BFXA	25 Stk.
		27 34046136	230 x 8,0 x 22,23	A24Q-BFX	10 Stk.

Further dimensions and designs on request

<b>Data collection for rail maintenance</b>				
<b>Customer</b>	Name:		Customer no.:	
	Address:		Current supplier:	
	Contact:		Qty./year:	
	E-mail/tel.:		Price:	
<b>Machine</b>	Machine type:	<input type="checkbox"/> Grinding train <input type="checkbox"/> Hand-op. grinding <input type="checkbox"/> Off-hand grinding <input type="checkbox"/> Cutting <input type="checkbox"/> Off-hand cutting		
	Manufacturer:		Max. operating speed:	<input type="checkbox"/> m/s <input type="checkbox"/> rpm
	Motor power:	<input type="checkbox"/> kW <input type="checkbox"/> HP	Vs adjustable:	<input type="checkbox"/> yes <input type="checkbox"/> no
	Pressure:	(e.g. bar)	No. of grinding spindles:	
	Train speed:	<input type="checkbox"/> km/h <input type="checkbox"/> mph		
<b>Grinding/cut-off wheel</b>	Shape of grinding and cut-off wheels			
	Dimensions (mm):	(Please see figure in attachment)		
	*Fibre glass reinforcement:	<input type="checkbox"/> yes <input type="checkbox"/> no		
	** Machine mount: (shape 36ST only)	Pitch circles:		Thread: <input type="checkbox"/> left <input type="checkbox"/> right
	No. of inserted nuts/division:			Design of protruding inserted nut: <input type="checkbox"/> yes <input type="checkbox"/> no
<b>Workpiece</b>	Field of work:	(e.g. passenger/freight transport, underground train, tram, high-speed track)		
	Designation:		Material:	
	Ground surface (µm):	<input type="checkbox"/> Ra <input type="checkbox"/> Rt <input type="checkbox"/> Rz		
	Grinding position:	<input type="checkbox"/> Rail head <input type="checkbox"/> Rail side/flank <input type="checkbox"/> Rail web <input type="checkbox"/> Weld seam		
<b>Customer requirements</b>	Required surface (µm):	<input type="checkbox"/> Ra <input type="checkbox"/> Rt <input type="checkbox"/> Rz		
	Long lifetime:	Aim of new recommendation:		
	Stock removal/passing over:			
<b>Information</b>	Please attach drawing/photo or sketch:			
<span style="margin: 0 20px;">                     Tyrolit Schleifmittelwerkzeuge SWAROVSKI K.G.                      Swarovskistrasse 33   6130 Schwaz   Austria                      Tel. +43 5242 606-0   Fax. +43 5242 63398                 </span>				





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